



# Annual Statement of the Financial Condition of the Massachusetts Teachers' Retirement System

To the Public Employee Retirement Administration  
Commission  
for the year ended June 30, 2018

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To the Public Employee Retirement Administration Commission  
for the fiscal year ended June 30, 2018

DATE OF FILING: DECEMBER 31, 2018

## THE MASSACHUSETTS TEACHERS' RETIREMENT BOARD

**Jeff Wulfson**

Chairman

Commissioner of Department of Elementary and Secondary Education

**Deborah B. Goldberg**

State Treasurer

Chairman, Pension Reserves Investment Management (PRIM) Board

**Suzanne M. Bump**

State Auditor

**Dennis J. Naughton**

Elected by the membership

MTRS appointed representative to the PRIM Board

Retired Massachusetts educator

**Richard L. Liston**

Appointed by the Board

Retired Massachusetts educator

**Jacqueline A. Gorrie**

Elected by the membership

Retired Massachusetts educator

**Anne Wass**

Appointed by the Governor

Retired Massachusetts educator

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# MTRS Annual Statement

For the fiscal year ended June 30, 2018

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**Board Certification of Annual Statement**

**ANNUAL STATEMENT**  
for the  
**FINANCIAL CONDITION**  
of the  
**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
Organized under the Laws of the Commonwealth of Massachusetts  
to the

**COMMISSIONER OF PUBLIC EMPLOYEE RETIREMENT ADMINISTRATION COMMISSION**  
**OF THE COMMONWEALTH OF MASSACHUSETTS**  
**PURSUANT TO THE LAWS THEREOF**

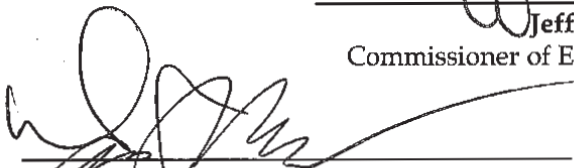
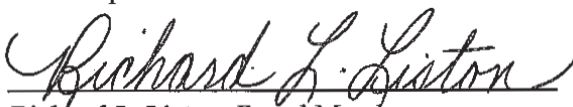


Massachusetts Teachers' Retirement System  
500 Rutherford Avenue, Suite 210, Charlestown, MA 02129-1628  
Telephone: 617-679-6877

We, the undersigned members of the Teachers' Retirement System, certify under the penalties of perjury, that we are the official board members of said retirement system, and that on the thirtieth day of June last, all of the herein-described assets were the absolute property of said retirement system, free and clear from any liens or claims thereon, except as stated, and the following statements, with the schedules and explanations therein contained, annexed, or referred to, are a full and correct exhibit of all the assets, liabilities, income and disbursements, changes in fund balances and of the conditions and affairs of the said retirement system on the said thirtieth day of June last, and for the year ended on that date, according to the best of our information, knowledge and belief, respectively.

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**



Jeff Wulfson, Chairman  
Commissioner of Elementary and Secondary Education

  
Dennis J. Naughton, Board Member  
Term expires 12/31/2019  
Richard L. Liston, Board Member  
Term expires 1/31/2020  
Nicola Favorito  
Designee of Deborah B. Goldberg  
Jacqueline A. Gorrie, Board Member  
Term expires 12/31/2019  
Anne Wass, Board Member  
Serves until a successor is appointed  
Michael P. Ruane  
Designee of Suzanne M. Bump

December 14, 2018

To MTRS active and retired members:

We are pleased to submit the Annual Financial Statement of the Massachusetts Teachers' Retirement System (MTRS, System) for the fiscal year ended June 30, 2018. Responsibility for both the accuracy of the financial statements contained herein and the completeness and fairness of the presentation rests with the management of the MTRS. To the best of our knowledge and belief, the enclosed data is accurate in all material respects and is reported in accordance with the financial reporting guidelines of the Public Employee Retirement Administration Commission (PERAC).

### **System Overview**

The Massachusetts Teachers' Retirement System is a contributory defined benefit plan established on July 1, 1914 pursuant to M.G.L. c. 15, § 16, and governed by M.G.L. c. 32. The largest of the Commonwealth's 104 public retirement systems, the MTRS provides retirement, disability and survivor benefits to over 93,000 active and 66,000 retired educators of the public schools, educational collaboratives and charter schools of the Commonwealth<sup>1</sup>. The MTRS is governed by a seven-member board consisting of the Commissioner of Elementary and Secondary Education or his designee, who serves as Chair, the State Treasurer or her designee, the State Auditor or her designee, two members elected by the other members of the System, a retired teacher appointed by the Governor and a seventh member chosen by the other six board members. The Board appoints the Executive Director, who, together with a staff of 87 full-time and twelve part-time professionals in the main and western regional offices, administers the System.

### **Benefit Payments**

The primary purpose of the MTRS is to provide retirement and survivor benefits to Massachusetts public educators and their beneficiaries. Benefit payments to our 66,661 retirees and survivors totaled \$2.9 billion during the reporting period, an increase of 3.47% over the fiscal year ended June 30, 2017.

### **Major Initiatives**

#### **New web site**

Since 1997, the MTRS website had been hosted by the Commonwealth's IT department and, until October 2017 when the mass.gov portal underwent a major overhaul in structure and format, that arrangement served us and our members well. However, because the changes to mass.gov were not compatible with the way we needed and wanted to present our information and services to our members, we engaged a local vendor to help design, develop and host a new site. Our Communications team worked with the vendor over a four-month period, and on March 29, 2018, we went live with the new site featuring member-centric, intuitive navigation, and a clean and modern look. Since go-live, we have continued to expand our online resources, which now include interactive retirement benefit estimate calculators for Tier 1 and Tier 2 members, 14 educational videos for members, six training videos for employers, and news archives for members and employers. To date, our experience with our new site has been overwhelmingly positive: We have received good feedback from our members and constituents, and our in-house team is quickly able to handle our communications needs as we have control over our online features, content and format.

#### **Agency reorganization**

At the end of the fiscal year, following the retirement of two long-serving senior managers, we completed an analysis of our staffing and organizational structure. As a result, we added four new service representative

<sup>1</sup> MTRS membership does not include the teachers and administrators of the Boston Public Schools, who are members of the City of Boston Retirement System.

positions for FY 2019 and made a number of structural changes designed to: achieve timely deduction report processing, as that is the foundation for the vast majority of our high volume functions; eliminate backlogs in the areas of member enrollments and related processes; regionalize member services and employer services to improve efficiency and consistency; and ensure appropriate staff resources to maintain high service levels as we complete the full rollout of member self-service functionality.

#### **Exclusive Benefit Rule Review**

The MTRS continued its efforts to resolve exclusive benefit rule (EBR) issues in collaboration with the Governor's Office of Administration and Finance, the Massachusetts State Employees Retirement System (MSERS), PERAC and the State Comptroller. A statutory change in early 2017 resolved the MTRS's prospective EBR issues, which included (i) the funding of the PERAC budget from the assets of the MTRS and MSERS, (ii) the deposit of federal grant fringe payments in the General Fund, and (iii) the deposit of reimbursements from local retirement systems pursuant to M.G.L. c. 32, §3(8)(c) in the General Fund. The parties continue to work with tax counsel on IRS review of the resolutions.

#### **Member Services**

During the reporting period, over 700 members received pre-scheduled retirement counseling that is offered every two weeks in both the main and regional offices, over 1,100 members received walk-in services, approximately 2,200 members attended nine regional *Your MTRS Benefits* seminars designed for members at any career stage, and over 1,100 members attended ten regional presentations of *Ready for Retirement*, a program specifically geared toward members who plan to retire within the coming year. Staff also responded to over 3,500 emails and over 36,000 telephone calls. Additionally, we now offer 14 tutorial videos for members on our website, which cover the topics of enrollment, leaving service and general benefits provisions.

#### **Employer Training**

This year, we introduced three new employer training videos (*Registering a New Employee in MyTRS*; *Retiree Insurance*; and *Completing Part 2 of the Retirement Application*). We now have six training videos available to support our employer partners. In addition to the training videos, our staff held 12 in-person training sessions attended by a total of 203 school district payroll and business officials.

#### **Legislation**

The MTRS supported two major legislative initiatives in FY 18 – the reform of the pension forfeiture statute, and amendments to the RetirementPlus (R+) election process for members who transfer into the MTRS from another Massachusetts contributory retirement system.

#### **Pension Forfeiture**

The MTRS supported legislation filed by the Special Commission on Pension Forfeiture in FY 18, which incorporates language previously filed by the MTRS in 2017 that would amend the definition of crimes relating to one's office or position to include convictions for child pornography and other sex crimes against children for teachers and other public employees whose primary job involves children. Other changes in the proposed legislation include limiting forfeitures to felony convictions, allowing partial forfeiture depending on the nature of the crime, and providing survivor benefits for an innocent spouse or dependent.

#### **R+ Elections**

In order to address and resolve longstanding confusion about R+ participation among members who transfer into the MTRS from other Massachusetts public retirement systems, the MTRS filed S. 2592. If enacted, this legislation would eliminate the R+ election for future new teachers who transfer into the MTRS



and whose membership service in their local retirement system began *after* the effective date of the legislation, treating these teachers like all other new teachers. For those teachers who transfer into the MTRS whose membership in the local retirement system began *before* the effective date of the legislation, it changes the R+ election to an elect-out instead of the current elect-in. This protects the best interests of those members as they will default *into* the program, and thus, they will either receive the enhanced R+ benefit, or if they do not work long enough to benefit from the enhanced formula, they will receive a refund of the difference between 11% and their prior contribution rate. Finally, the legislation provides a new, one-time, 180-day confirming R+ election window for members who transferred into the MTRS between 7/1/2001 and the effective date of the legislation, and who failed to respond to their previous R+ election materials.

### Investments

The assets of the MTRS are held in the Pension Reserves Investment Trust (PRIT) fund, established by Chapter 661 of the Acts of 1983, and managed by the Pension Reserves Investment Management (PRIM) Board. The nine-member PRIM Board acts as trustee for the MTRS and other participating retirement systems. Its purpose is to assist the Commonwealth in reducing its unfunded pension liability by maximizing the return on investment within acceptable levels of risk through broad diversification, economies of scale, cost-effective operations, and access to high quality, innovative investments.

For fiscal year ending June 30, 2018, the total PRIT fund return was 9.97% gross of fees, and the MTRS asset balance increased to \$28.5B.

### Funding

MTRS benefits are funded from member and employer contributions as well as the earnings on the assets of the System. Member contributions are established pursuant to M.G.L. c. 32, § 22. Effective July 1, 2001, all new MTRS members contribute at the rate of 11% of eligible payroll. Pursuant to M.G.L. c. 32, § 22C, in addition to paying the net normal cost of benefits, the Commonwealth makes annual payments in accordance with a funding schedule, established triennially, which is designed to reduce the unfunded actuarial liability as of January 1, 1987 to zero by June 30, 2040.

In FY 2018, the Commonwealth appropriated \$2.39 billion for its pension obligations pursuant to the funding schedule, of which \$1.3 billion was to fund the MTRS. FY 2018 was the first year of the funding schedule established by the Commonwealth in January 2017. In that schedule, the Commonwealth made a commitment to increase the pension appropriation by 8.94% per year for fiscal years 2018–2020. That schedule is designed to reduce the Commonwealth's unfunded liability to zero by 2036, four years ahead of the statutory deadline.

### Acknowledgements

The preparation of this report is through the combined efforts of MTRS professional staff, and represents our commitment to the MTRS mission: To ensure that members of the Massachusetts Teachers' Retirement System achieve and maintain a successful and secure retirement through responsible benefits administration, financial integrity and the provision of outstanding services.

Respectfully submitted,



Erika M. Glaster  
Executive Director

## Public Pension Coordinating Council Award



Public Pension Coordinating Council

***Public Pension Standards Award  
For Funding and Administration  
2018***

Presented to

**Massachusetts Teachers Retirement System**

In recognition of meeting professional standards for  
plan funding and administration as  
set forth in the Public Pension Standards.

*Presented by the Public Pension Coordinating Council, a confederation of*

National Association of State Retirement Administrators (NASRA)  
National Conference on Public Employee Retirement Systems (NCPERS)  
National Council on Teacher Retirement (NCTR)

A handwritten signature in dark ink, reading 'Alan H. Winkle'.

Alan H. Winkle  
Program Administrator



## Members of the Board



**Jeff Wulfson**  
Chairman

Commissioner  
of Department of  
Elementary and  
Secondary Education



**Jacqueline A. Gorrie**

Elected by  
the membership

Retired Massachusetts  
educator



**Deborah B. Goldberg**  
State Treasurer

Chairman,  
Pension Reserves  
Investment  
Management (PRIM)  
Board



**Anne Wass**

Appointed by  
the Governor

Retired  
Massachusetts  
educator



**Suzanne M. Bump**  
State Auditor



**Dennis J. Naughton**

Elected by the  
membership

Retired Massachusetts  
educator;  
MTRS appointed  
representative  
to the PRIM Board



**Richard L. Liston**

Appointed by the  
Board

Retired  
Massachusetts  
educator

## Annual Statement Balance Tests

For the year ended June 30, 2018

2018

### ASSET BALANCE

Assets Previous Year	\$ 27,138,608,621
Income Current Year	4,991,376,840
Disbursements Current Year	3,338,274,726
<b>Assets Current Year</b>	<b>\$ 28,791,710,735</b>

### ASSET DIFFERENCE

Assets Current Year	\$ 28,791,710,735
Assets Previous Year	27,138,608,621
<b>Difference</b>	<b>\$ 1,653,102,114</b>

### INCOME DIFFERENCE

Income Current Year	\$ 4,991,376,840
Disbursements Current Year	3,338,274,726
<b>Difference</b>	<b>\$ 1,653,102,114</b>

### FUND CHANGE DIFFERENCE

Total Fund Change Credits Current Year	\$ 6,360,836,489
Total Fund Change Debits Current Year	4,707,734,375
<b>Difference</b>	<b>\$ 1,653,102,114</b>

**Annual Statement Balance Tests**

Continued

## Three-Year Comparison

	Fiscal 2016	Fiscal 2017	Fiscal 2018
<b>ASSET BALANCE</b>			
Assets Previous Year	\$ 25,429,068,185	\$ 24,942,072,259	\$ 27,138,608,621
Income Current Year	2,596,873,783	5,429,520,141	4,991,376,840
Disbursements Current Year	3,083,869,709	3,232,983,779	3,338,274,726
<b>Assets Current Year</b>	<b>\$ 24,942,072,259</b>	<b>\$ 27,138,608,621</b>	<b>\$ 28,791,710,735</b>

<b>ASSET DIFFERENCE</b>			
Assets Current Year	\$ 24,942,072,259	\$ 27,138,608,621	\$ 28,791,710,735
Assets Previous Year	25,429,068,185	24,942,072,259	27,138,608,621
<b>Difference</b>	<b>\$ (486,995,926)</b>	<b>\$ 2,196,536,362</b>	<b>\$ 1,653,102,114</b>

<b>INCOME DIFFERENCE</b>			
Income Current Year	\$ 2,596,873,783	\$ 5,429,520,141	\$ 4,991,376,840
Disbursements Current Year	3,083,869,709	3,232,983,779	3,338,274,726
<b>Difference</b>	<b>\$ (486,995,926)</b>	<b>\$ 2,196,536,362</b>	<b>\$ 1,653,102,114</b>

<b>FUND CHANGE DIFFERENCE</b>			
Total Fund Change			
Credits Current Year	\$ 4,028,929,707	\$ 6,779,708,938	\$ 6,360,836,489
Total Fund Change			
Debits Current Year	4,515,925,633	4,583,172,576	4,707,734,375
<b>Difference</b>	<b>\$ (486,995,926)</b>	<b>\$ 2,196,536,362</b>	<b>\$ 1,653,102,114</b>

## Assets and Liabilities

		Fiscal 2016	Fiscal 2017	Fiscal 2018
1100	Cash	\$ 84,499,690	\$ 89,529,263	\$ 109,801,216
1198	PRIT Cash Account	22,315,100	24,277,482	29,048,393
1199	PRIT Capital Fund	24,744,674,611	26,932,054,215	28,559,010,612
1398	Accounts Receivable	88,877,468	102,295,801	110,949,244
1400	Prepaid Postage	168,844	163,950	169,481
1350	Prepaid Contracts	133,320	113,453	144,309
1900	Intangible Software Costs <sup>14</sup>	10,916,801	7,385,793	4,200,112
2020	Accounts Payable	(3,268,681 )	(13,076,252 )	(18,587,117)
2097	Deferred Revenue	(6,244,894 )	(4,135,084 )	(3,025,514)
	Total	<b>\$ 24,942,072,259</b>	<b>\$ 27,138,608,621</b>	<b>\$ 28,791,710,735</b>
3293	Annuity Savings Fund <sup>2</sup>	\$ 7,160,338,512	\$ 7,552,916,713	\$ 7,956,803,663
3294	Annuity Reserve Fund <sup>3</sup>	2,394,870,213	2,255,262,992	2,102,435,201
3295	Military Service Fund <sup>4</sup>	237,059	230,034	246,476
3296	Pension Fund <sup>5</sup>	—	—	—
3298	Expense Fund <sup>6</sup>	—	—	—
3297	Pension Reserve Fund <sup>7</sup>	15,386,626,475	17,330,198,882	18,732,225,395
	Total	<b>\$ 24,942,072,259</b>	<b>\$ 27,138,608,621</b>	<b>\$ 28,791,710,735</b>

## Statement of Funds Flow

	July 1 2017 Balance	Receipts	Inter-Fund Transfers	Disbursements	June 30 2018 Balance
Annuity Savings Fund	\$ 7,552,916,713	\$ 803,955,503	\$(350,373,195)	\$ 49,695,358	\$ 7,956,803,663
Annuity Reserve Fund	2,255,262,992	68,394,812	350,378,410	571,601,013	2,102,435,201
Pension Fund	—	1,483,498,330	1,019,081,239	2,502,579,569	—
Military Service Fund	230,034	21,657	(5,215)	—	246,476
Expense Fund	—	214,398,786	—	214,398,786	—
Pension Reserve Fund	17,330,198,882	2,421,107,752	(1,019,081,239)	—	18,732,225,395
<b>Total All Funds</b>	<b>\$ 27,138,608,621</b>	<b>\$ 4,991,376,840</b>	<b>\$ 0</b>	<b>\$ 3,338,274,726</b>	<b>\$ 28,791,710,735</b>

## INTER-FUND TRANSFERS

Description	Annuity Savings Fund	Annuity Reserve	Pension Fund	Military Service Fund	Expense Fund	Pension Reserve Fund	Total
New retirees	\$(350,373,195)	\$ 350,373,195	0	0	0	0	\$0
Repay pension and annuity and unretirement	0	0	0	0	0	0	0
New retirees	0	5,215	0	(5,215)	0	0	0
Funding pension benefits	0	0	1,019,081,239	0	0	(1,019,081,239)	0
	\$(350,373,195)	\$ 350,378,410	1,019,081,239	\$(5,215)	\$0	\$(1,019,081,239)	\$0

## Receipts

		Fiscal 2016	Fiscal 2017	Fiscal 2018
<b>Annuity Savings Fund</b>				
4891	Members' Deductions	\$ 699,421,905	\$ 730,699,407	\$ 755,687,921
4892	Transfers from Other Systems	25,875,712	17,128,657	23,258,512
4893	Member Make-Up Payments and Redeposits	15,270,866	10,258,376	8,899,092
4900	Member Payments from Rollovers	10,889,016	11,598,326	8,957,304
4820	Investment Income Credited to Members' Accounts	6,041,193	6,776,334	7,152,674
	<b>Subtotal</b>	<b>\$ 757,498,692</b>	<b>\$ 776,461,100</b>	<b>\$ 803,955,503</b>
<b>Annuity Reserve Fund</b>				
4820	Investment Income	76,124,546	72,514,394	68,394,812
	<b>Subtotal</b>	<b>\$ 76,124,546</b>	<b>\$ 72,514,394</b>	<b>\$ 68,394,812</b>
<b>Pension Fund</b>				
4898	3(8)(c) Reimbursements from Other Systems <sup>8</sup>	19,494,788	40,191,430	48,274,990
4899	Received from Commonwealth for COLA <sup>16</sup>	225,120,921	241,574,978	257,216,400
4894	Pension Fund Appropriation <sup>16</sup>	1,027,796,079	1,134,616,815	1,177,979,267
4840	Workers' Compensation Settlement	115,963	13,250	23,000
4841	Recovery of 91A Overearnings <sup>9</sup>	—	—	4,673
	<b>Subtotal</b>	<b>\$ 1,272,527,751</b>	<b>\$ 1,416,396,473</b>	<b>\$ 1,483,498,330</b>
<b>Military Service Fund</b>				
4890	Contributions Received for Military Service	24,246	1,425	21,411
4820	Investment Income	237	230	246
	<b>Subtotal</b>	<b>\$ 24,483</b>	<b>\$ 1,655</b>	<b>\$ 21,657</b>
<b>Expense Fund</b>				
4896	Expense Fund Appropriation	172,424,406	203,939,293	214,398,786
	<b>Subtotal</b>	<b>\$ 172,424,406</b>	<b>\$ 203,939,293</b>	<b>\$ 214,398,786</b>
<b>Pension Reserve Fund</b>				
4897	Federal Grant Reimbursement	2,789,767	3,172,830	3,140,623
4822	Interest Not Refunded <sup>11</sup>	147,655	121,298	174,456
4820	Excess Investment Income	315,335,760	2,956,695,845	2,399,051,801
4825	Miscellaneous <sup>12</sup>	723	217,254	3,655,974
4889	Capital Gain Revenue, G.L. Ch29, 5G	—	—	15,084,898
	<b>Subtotal</b>	<b>\$ 318,273,905</b>	<b>\$ 2,960,207,226</b>	<b>\$ 2,421,107,752</b>
<b>TOTAL RECEIPTS</b>		<b>\$ 2,596,873,783</b>	<b>\$ 5,429,520,141</b>	<b>\$ 4,991,376,840</b>



## Disbursements

		Fiscal 2016	Fiscal 2017	Fiscal 2018
<b>Annuity Savings Fund</b>				
5757	Refunds to Members	\$ 36,615,536	\$ 36,058,968	\$ 39,002,238
5757.1	Section 11 Active Death Refunds	1,861,546	2,439,484	1,700,456
5756	Transfers to Other Systems	9,661,082	11,839,148	8,992,664
	<b>Subtotal</b>	<b>\$ 48,138,164</b>	<b>\$ 50,337,600</b>	<b>\$ 49,695,358</b>
<b>Annuity Reserve Fund</b>				
5750	Annuities Paid	520,222,466	545,675,594	569,908,816
5759	Option B Refunds <sup>10</sup>	—	—	1,692,197
	<b>Subtotal</b>	<b>\$ 520,222,466</b>	<b>\$ 545,675,594</b>	<b>\$ 571,601,013</b>
<b>Pension Fund</b>				
5751	Pensions Paid (Regular Pension Payments)	1,993,194,286	2,054,788,066	2,109,583,387
5755	3(8)(c) Reimbursements to Other Systems	4,341,541	4,186,412	4,481,619
5755.1	Boston Teachers' Payment	120,434,000	132,477,000	131,297,926
5753	QEBA <sup>13</sup>	3,925	4,836	237
5752	COLAs Paid	225,120,921	241,574,978	257,216,400
	<b>Subtotal</b>	<b>\$ 2,343,084,673</b>	<b>\$ 2,433,031,292</b>	<b>\$ 2,502,579,569</b>
<b>Military Service Fund</b>				
4890	Return to Municipality for Members Who Withdrew their Funds	—	—	—
	<b>Subtotal</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ —</b>
<b>Expense Fund</b>				
5119	Salaries	7,990,472	8,483,808	8,905,383
5304	Management Fees	128,709,643	139,695,051	146,595,593
5308	Legal Expenses	57,329	15,998	57,891
5310	Fiduciary insurance	37,434	45,044	45,127
5311	Service Contracts	2,300,923	2,631,393	2,556,745
5312	Rent Paid	848,291	945,945	910,814
5320	Education and Training	33,253	17,164	40,565
5588	PERAC Expenses	4,952,481	4,000,000	—
5589	Administrative Expenses	475,029	605,219	396,072
5599	Furniture and Equipment	108,831	422,828	126,851
5719	Travel	25,646	29,574	36,215
5897	Federal Grants Distributed	2,789,767	3,172,830	3,140,623
5900	3(8)(c) Reimbursement to General Fund	19,494,789	40,191,430	48,274,990
5315	Professional Expense	172,673	152,003	126,235
5829	Amortization Expense	4,427,846	3,531,008	3,185,681
	<b>Subtotal</b>	<b>\$ 172,424,406</b>	<b>\$ 203,939,293</b>	<b>\$ 214,398,786</b>
<b>Pension Reserve Fund</b>				
	<b>Subtotal</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ —</b>
<b>TOTAL DISBURSEMENTS</b>		<b>\$ 3,083,869,709</b>	<b>\$ 3,232,983,779</b>	<b>\$ 3,338,274,726</b>

## Investment Income

	Fiscal 2016	Fiscal 2017	Fiscal 2018
INVESTMENT INCOME			
Investment Income received from:			
Cash	\$ 433,246	\$ 439,810	\$ 761,820
Pooled or Mutual Funds	678,029,499	744,918,751	765,283,219
<b>Total Investment Income</b>	<b>\$ 678,462,745</b>	<b>\$ 745,358,561</b>	<b>\$ 766,045,039</b>
4884 Realized Gains	600,036,270	994,714,913	1,516,584,099
4886 Unrealized Gains	1,958,518,982	2,271,732,510	1,767,102,926
	<b>\$ 2,558,555,252</b>	<b>\$ 3,266,447,424</b>	<b>\$ 3,283,687,025</b>
4887 Less Unrealized Losses	(2,641,543,633)	(771,879,888)	(1,360,733,745)
4885 Realized loss	(25,548,222)	—	—
<b>Net Investment Income (loss)</b>	<b>\$ 569,926,142</b>	<b>\$ 3,239,926,096</b>	<b>\$ 2,688,998,319</b>
INCOME REQUIRED			
3293 Annuity Savings Fund	6,041,193	6,776,334	7,152,674
3294 Annuity Reserve Fund	76,124,546	72,514,394	68,394,812
3295 Military Service Fund	237	230	246
3298 Expense Fund	172,424,406	203,939,293	214,398,786
<b>Total Income Required</b>	<b>\$ 254,590,382</b>	<b>\$ 283,230,251</b>	<b>\$ 289,946,518</b>
<b>Net Investment Income</b>	<b>\$ 569,926,142</b>	<b>\$ 3,239,926,096</b>	<b>\$ 2,688,998,319</b>
<b>Less Income Required</b>	<b>254,590,382</b>	<b>283,230,251</b>	<b>289,946,518</b>
<b>Excess Income (Loss) to Pension Reserve Fund</b>	<b>\$ 315,335,760</b>	<b>\$ 2,956,695,845</b>	<b>\$ 2,399,051,801</b>

## Membership Information

### Active Members

Previous Year Ending June 30, 2017	90,897
Net Change During Report Year 2018	364
<b>Active Membership Current Year Ending June 30, 2018</b>	<b>91,261</b>

### Inactive Members

Previous Year Ending June 30, 2017	29,211
Net Change During Report Year 2018	989
<b>Inactive Membership Current Year Ending June 30, 2018</b>	<b>30,200</b>

### Retired Members, Beneficiaries and Survivors

Previous Year Ending June 30, 2017	65,547
Net Change During Report Year 2018	1,114
<b>Retired, Beneficiary and Survivor Membership Current Year Ending June 30, 2018</b>	<b>66,661</b>

Superannuation	34,884
Minimum Pension Retirements	128
Pop-Up Retirements	997
Early Retirements	771
RetirementPlus Retirements	25,009
Survivors–Active	2,003
Survivors–Retiree	1,925
Accidental Death Retirements	15
Ordinary Disability	402
Accidental Disability	317
Termination	178
Guardian	23
Minimum Pension–Survivor	9

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<b>Total Membership, June 30, 2018</b>	<b>188,122</b>
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## Notes on the Financial Statements

### 1. Significant Accounting Policies

The accounting records of the System for June 30, 2018 are maintained on a fiscal year basis in accordance with the standards and procedures established by the Executive Director of the Public Employee Retirement Administration Commission. All investments are stated at market value at the end of the year.

### 2. Annuity Savings Fund

The Annuity Savings Fund is the fund to which all members' contributions are deposited. Members withdrawing from the System receive a refund of their total accumulated contributions and a required amount of interest. Refunds to members for the report year 2018 were \$39,002,238, refunds to beneficiaries of deceased active members were \$1,700,456 and transfers to other systems were \$8,992,664. The value of the Annuity Savings Fund was \$7.956 billion as of June 30, 2018. In 2018, interest is accrued at a rate of 0.1%.

### 3. Annuity Reserve Fund

The Annuity Reserve Fund is the fund to which a member's account is transferred upon retirement from the Annuity Savings Fund and the Special Fund for Military Service credit. The annuity portion of the retirement allowance is paid from this fund. Interest is credited monthly to this fund at the rate of 3% annually on the previous month's balance. In 2018, an amount of \$350.373 million was transferred to the Annuity Reserve Fund. The value of the Annuity Reserve Fund was \$2.102 billion as of June 30, 2018.

### 4. Military Service Fund

The Military Service Fund contains contributions and interest for members who receive creditable service while on a military leave. The balance in the Military Service Fund on June 30, 2018 was \$246,476. Contributions and interest income credited to the Military Service Fund were \$21,411 and \$246 respectively. In 2018, an amount of \$5,215 was transferred to the Annuity Reserve Fund.

### 5. Pension Fund

The Pension Fund contains the amounts appropriated by the Commonwealth of Massachusetts and investment funds liquidated from the Pension Reserve Investment Trust designated to pay the pension portion of each retirement allowance.

### 6. Expense Fund

The Expense Fund contains amounts transferred from investment income for the purpose of administering the Teachers' Retirement System. Due to the nature of the Teachers' Retirement System's funding and payment structure, it is necessary to record any unreimbursed balances in the Accounts Receivable account. No amounts were unreimbursed as of June 30, 2018.

Management Fees are amounts paid by the Pension Reserve Investment Trust for managing investments. PERAC requires these costs be accounted for in the expense fund.

3(8)(c) Reimbursements to the General Fund are \$48,274,990 for 3(8)(c) payments received from other retirement systems, which are deposited into the MTRS account at Bank of America and then swept by Treasury and posted to the Commonwealth's General Fund. MTRS does not have spending authority on these funds.

Federal Grants Distributed equal fringe assessments collected in the amount of \$3,140,623. Federal grant fringe payments are a pass-through from school districts to MTRS to the Commonwealth's General Fund; MTRS role is administrative in that we collect, deposit and record federal grant fringe amounts to the Commonwealth's General Fund with no spending authority.

## **7. Pension Reserve Fund**

The Pension Reserve Fund is administered by the Pension Reserves Investment Management Board (PRIM Board). The Fund contains amounts appropriated by the Commonwealth of Massachusetts for the purposes of funding future retirement benefits. Any investment income in excess of the amount required to credit the Annuity Savings Fund, Annuity Reserve Fund, Expense Fund and the Special Military Service fund is credited to the Pension Reserve Fund. In 1996, Massachusetts State Teachers' and Employees' Retirement Systems Trust (MASTERS) was merged into the Pension Reserves Investment Trust (PRIT) Fund to form a consolidated pension fund under the management of the Pension Reserves Investment Management Board. Inactive member account balances must be transferred to the Pension Reserve Fund after a period of ten years of inactivity.

## **8. 3(8)(c)**

A 3(8)(c) reimbursement is the pension benefit reimbursement received from other Massachusetts public retirement systems for the portion of the benefit attributable to the creditable service rendered in the other system. The total 3(8)(c) reimbursements received in 2018 for calendar year 2017 were credited to the Commonwealth General Fund. The Teachers' Retirement System's 3(8)(c) reimbursements from other systems during report year 2018 were \$48,274,990. The amount the Teachers' Retirement System paid to other systems was \$4,481,619.

## **9. Recovery of 91A Overearnings**

Members who exceed the earnings limits are required to remit payments to MTRS. The amount of \$4,673 was received into a new account for fiscal 2018, prior year receipts were reported in Miscellaneous Income.

## **10. Option B Refunds**

Upon the death of retirees electing Option B, refund payments are made to their beneficiary(ies) for the remaining balance in their annuity savings account. The amount \$1,692,197 is reported in a separate line item for fiscal 2018; prior years' payments were reported within the Annuities Paid line.

## **11. Interest-Not-Refunded**

Interest-not-refunded is interest forfeited by members upon withdrawal from the System prior to becoming fully vested or forfeited due to criminal convictions. The interest forfeiture applies to members who commenced employment on or after January 1, 1984. The 2018 Interest-not-refunded of \$174,456 is recorded as revenue in the Pension Reserve Fund.

**12. Miscellaneous Income**

Miscellaneous Income includes a \$3,655,882 transfer from the Commonwealth's uncashed check fund. The State Treasury, with the assistance of MTRS and MSERS completed a special project that researched a backlog of uncashed retirement system checks, and returned those funds to the retirement systems for redeposit.

**13. Qualified Excess Benefit Arrangement (QEBA)**

To comply with Section 415 of the Internal Revenue Code which imposes limits on retirement benefits, the MTRS has funded a QEBA account. The QEBA account will provide benefits that cannot be provided under a qualified plan due to the limits of section 415. The balance is accounted for in cash.

The Activity in the Account:	Beginning Balance	\$62,331
	Revenue	0
	Less Payments	- 236
	Balance 6/30/18	\$ 62,095

**14. Intangible Software Cost: New Line of Business Solution/MyTRS****Capital Asset Activity**

Computer hardware and software is recorded at cost and is being amortized on a straightline basis over a useful life of 3 years and 7 years respectively.

	June 30, 2017	Increase	Decrease	June 30, 2018
<b>Assets Being Amortized:</b>				
Infrastructure	\$ 936,319	\$ —	\$ —	\$ 936,319
Computer Hardware	163,171	—	—	163,171
Computer Software	27,582,698	—	—	27,582,698
Total	\$ 28,682,188	\$ —	\$ —	\$ 28,682,188
<b>Less: Accumulated Amortization</b>				
Computer Hardware	\$ 123,612	\$ 39,559	\$ —	\$ 163,171
Computer Infrastructure	702,816	233,503	—	936,319
Computer Software	20,469,967	2,912,619	—	23,382,586
	\$ 21,296,395	\$ 3,185,681	—	\$ 24,482,076
Net Book Value	\$ 7,385,793	\$ 3,185,681	\$ —	\$ 4,200,112

**15. Estate Receivable and Payable**

When a benefit recipient dies, depending on the timing of the death notification relative to the monthly benefit warrant, this event may create a receivable or payable between the retirement system and the estate. At June 30, 2018 the amount due to be received from estates from 2015 to present is \$353,853 and the amount payable to estates including the deceased members' remaining annuity balance is \$1,213,449.



**16. Commonwealth Pension Funding**

The Commonwealth appropriated \$1,435,195,667 for State and Boston Teachers for fiscal 2018.

**Pension Funding Schedule**

Boston Teachers Appropriation	\$ 131,297,926
State Teachers Appropriation	1,046,681,341
COLA	257,216,400
<hr/>	
<b>Total</b>	<b>\$ 1,435,195,667</b>

**17. Installment Accounts Receivable and Deferred Revenue**

Members may purchase creditable service on an installment basis. There are approximately 1,022 members with \$6,007,027 in potential receivables due for service purchases. Of that total, \$2,981,513 is due to be collected within one year. The remaining \$3,025,514 due to be collected after one year, is reported as a deferred revenue.

## Appendix A

## Detail of Accounts Receivable and Accounts Payable

			2018 Amount
ACCOUNTS RECEIVABLE			
4893	Estate Accounts Receivable <sup>15</sup>	\$	353,853
4893	Allowance for Doubtful Accounts		(245,337)
	<b>Net, Estate Accounts Receivable</b>	<b>\$</b>	<b>108,516</b>
1395	3(8)(c) Accounts Receivable <sup>8</sup>	\$	15,965,092
1395.1	Allowance for Doubtful Accounts		(332,000)
	<b>Net, 3(8)(c) Accounts Receivable</b>	<b>\$</b>	<b>15,633,092</b>
1399	Capital Gain Receivable	\$	5,629,950
4893	Installment Accounts Receivable <sup>17</sup>		6,007,027
4891	Member Deductions		83,553,299
1396.2	Overpayment Receivable		17,360
	<b>Total Accounts Receivable</b>	<b>\$</b>	<b>110,949,244</b>
ACCOUNTS PAYABLE			
5308	Legal	\$	34,762
2021	Accrued Payroll		366,646
5311	Service Contracts		275,405
5589	Administrative Expense		37,940
5719	Travel		2,938
5757	Estate Accounts Payable		1,213,449
2022	Escrow Assets Held in Trust for Members		120,445
2020	Rent		4,032
2020.1	3(8)(c) Payable		13,532
2020.3	Annuity Accounts Payable		830,869
5900	3(8)(c) Due to General Fund		15,633,092
5599	Furniture & Expenses		37,756
1404	Education and Training Prepaid		16,250
2097	Deferred Revenue Installment Purchase		3,025,515
	<b>Total Accounts Payable</b>	<b>\$</b>	<b>21,612,631</b>

## Appendix B

## Massachusetts Pension Reserves Investment Trust Statements

**MTRS Cash Fund** For the year ending June 30, 2018***Pension Reserves Investment Management Board***

84 State Street, Suite 250  
Boston, Massachusetts 02109

Deborah B. Goldberg, Treasurer and Receiver General, Chair  
Michael G. Trotsky, CFA, Executive Director

**State Teachers Retirement System**  
Cash Investment

June 01, 2018 to June 30, 2018

	Month To Date	Fiscal Year To Date	Calendar Year To Date
<b>Your beginning net asset value for the period was:</b>	12,094,186.25	24,277,482.19	13,254,748.95
Your investment income for the period was:	140,809.20	1,119,623.24	631,462.70
Your total contributions for the period were:	79,244,621.33	804,170,627.23	429,487,544.70
Your total redemptions for the period were:	(144,041,096.58)	(1,714,084,224.22)	(859,955,926.46)
Your total exchanges for the period were:	81,609,872.58	913,564,884.34	445,630,562.89
Your state appropriations for the period were:	0.00	0.00	0.00
<b>Your ending net asset value for the period was:</b>	<b>29,048,392.78</b>	<b>29,048,392.78</b>	<b>29,048,392.78</b>

As of June 30, 2018 the net asset value of your investment in the Cash Fund was:

**\$29,048,392.78**

**If you have any questions regarding your statement, please contact your Senior Client Services Officer Paul Todisco (617) 946-8423.**  
*A detailed statement of your account is attached to this summary sheet.*

## Appendix B

## Massachusetts Pension Reserves Investment Trust Statements

## MTRS General Allocation Account

For the year ending June 30, 2018

**Pension Reserves Investment Management Board**84 State Street, Suite 250  
Boston, Massachusetts 02109Deborah B. Goldberg, Treasurer and Receiver General, Chair  
Michael G. Trosky, CFA, Executive Director**State Teachers Retirement System****General Allocation Account**

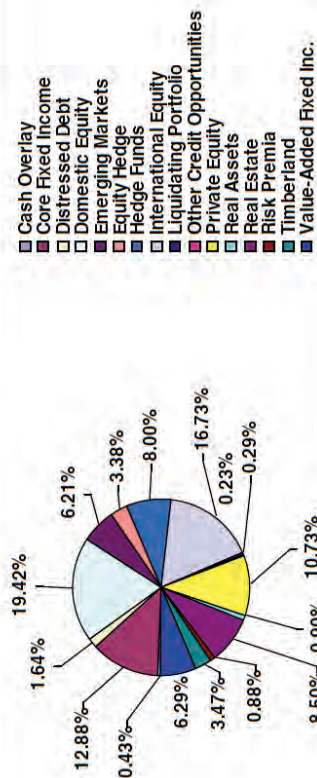
June 01, 2018 to June 30, 2018

	Month To Date	Fiscal Year To Date	Calendar Year To Date
<b>Your beginning net asset value for the period was:</b>	28,505,119,875.48	26,992,054,214.74	28,584,307,026.48
<b>Your change in investment value for the period was:</b>	135,500,608.80	2,540,521,281.30	420,334,148.11
<b>Your exchanges from (to) the Cash Fund for the period were:</b>	(81,609,872.58)	(913,564,884.34)	(445,630,562.89)
<b>Your ending net asset value for the period was:</b>	28,559,010,611.70	28,559,010,611.70	28,559,010,611.70
<b>Net Change in Investment Value represents the net change through investment activities as follows:</b>			
Gross Investment Income:	105,507,473.64	764,163,595.86	420,813,103.72
Less Management Fees:	(30,830,612.82)	(146,595,593.26)	(76,824,507.95)
Net Investment Income:	74,676,860.82	617,568,002.60	343,988,595.77
Net Fund Unrealized Gains/Losses:	(97,414,243.17)	406,369,180.00	(774,660,717.34)
Net Fund Realized Gains/Losses:	158,237,991.15	1,516,584,098.70	851,006,269.68
<b>Net Change in Investment Value as Above:</b>	135,500,608.80	2,540,521,281.30	420,334,148.11
			<b>\$28,559,010,611.70</b>

As of June 30, 2018 the net asset value of your investment in the PRIT Fund was:

**PRIT Fund Core Asset Allocation**

As of June 30, 2018



If you have any questions regarding your statement, please contact your Senior Client Services Officer Paul Todisco (617) 946-8423.  
A detailed statement of your account is attached to this summary sheet.

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## Appendix C

### Supplementary Schedules

#### **Members' Balances in the Annuity Savings Account**

For the fiscal year ending June 30, 2018

Previous Balance	\$	7,552,916,713
Total Additions Current Year		796,802,829
Total Interest Current Year		7,152,674
Reductions		49,695,358
Transfer to Annuity Reserves		350,373,195
Transfer from Pension Reserve Fund		—
<b>Balance Current Year</b>	<b>\$</b>	<b>7,956,803,663</b>

## Appendix C

## Supplementary Schedules

**Schedule 1: Cash Account Activity During the Year**

For the fiscal year ending June 30, 2018

Type of Account, Account Number, Interest Rate	Book value at the End of the Previous Year	Total Deposits this Year	Income Reinvested/ Redeposited into Account	Withdrawals During the Year	Total Book Value 12/31 this Year	Cash Income Paid to System Not Reinvested or Redeposited	Interest due and accrued 12/31
Bank of America	\$ 0	\$ 49,435,271	\$ 0	\$ 49,435,271	\$ 0	\$ 0	\$ 0
Mellon	2,317,758	801,297,682	0	803,504,945	110,495	0	0
Peoples United Bank Advanced	0	200,102	0	200,102	0	0	0
Peoples United Bank Escrow	67,350	306,959	0	253,864	120,445	0	0
Bank Cash	\$ 2,385,108	\$ 851,240,014	\$ 0	\$ 853,394,182	\$ 230,940	\$ 0	\$ 0
Cash Available on MMARS	87,144,155	3,209,122,915	0	3,186,696,794	109,570,276	0	0
Total Cash	\$ 89,529,263	\$4,060,362,929	\$ 0	\$ 4,040,090,976	\$109,801,216	\$ 0	\$ 0
PRIT Cash Fund	\$ 24,277,482	\$1,720,965,173	\$ 0	\$ 1,716,194,262	\$ 29,048,393	\$ 0	\$ 0



## Appendix C

### Supplementary Schedules

#### **Schedule 5: Schedule of PRIT Funds**

For the year ending June 30, 2018

	PERAC Ledger Number 1199 PRIT Capital Fund
Market Value, End of Previous Year	\$ 26,932,054,215
Total Purchases this Year at Cost/Member Deductions	—
Reinvested Investment Income	764,163,596
Realized Gains	1,516,584,099
Realized Losses	—
Unrealized Gains	1,767,102,925
Unrealized Losses	(1,360,733,745)
Total Sales/Redemptions this Year: Amount Received	—
Cash Dividends Distributions to System this Year	—
Fees Paid	(146,595,593)
Market Value at the End of this Year	\$ 28,559,010,612

## Appendix C

## Supplementary Schedules

**Schedule 6: Summary of Investments Owned**

For the year ending June 30, 2018

	PERAC Ledger Number			
	1040 Cash	1198 PRIT Cash	1199 PRIT Fund	Total
Current Market Value	\$ 109,801,216	\$ 29,048,393	\$ 28,599,010,612	\$ 28,737,860,221
Commissions Paid During Current Year	\$ —	\$ 146,595,593	\$ —	\$ 146,595,593
Investment Income Received During Year	\$ 761,820	\$ 1,119,623	\$ 764,163,596	\$ 766,045,039

## Appendix D

## Prior Years' Statements of Funds Flow

For the year ended June 30, 2017

	2016 Balance	Receipts	Inter-Fund Transfers	Disbursements	2017 Balance
Annuity Savings Fund	\$ 7,160,338,512	\$ 776,461,100	\$ (333,545,299)	\$ 50,337,600	\$ 7,552,916,713
Annuity Reserve Fund	2,394,870,213	72,514,394	333,553,979	545,675,594	2,255,262,992
Pension Fund	—	1,416,396,473	1,016,634,819	2,433,031,292	—
Military Service Fund	237,059	1,655	(8,680)	—	230,034
Expense Fund	—	203,939,293	—	203,939,293	—
Pension Reserve Fund	15,386,626,475	2,960,207,226	(1,016,634,819)	—	17,330,198,882
<b>Total All Funds</b>	<b>\$ 24,942,072,259</b>	<b>\$ 5,429,520,141</b>	<b>\$ —</b>	<b>\$ 3,232,983,779</b>	<b>\$ 27,138,608,621</b>

## INTER-FUND TRANSFERS

Transfer from...	Annuity Savings Fund	Annuity Reserve	Pension Fund	Military Service Fund	Expense Fund	Pension Reserve Fund	Total
Annuity Savings Fund to Annuity Reserve Fund	\$ (334,487,347)	\$ 334,487,347	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Annuity Reserve Fund to Annuity Savings Fund	942,048	(942,048)	0	0	0	0	0
Military Service to Annuity Reserve Fund	0	8,680	0	(8,680)	0	0	0
Pension Reserve Fund to Pension Fund for Fund Pensions	0	0	1,016,634,819	0	0	(1,016,634,819)	0
	\$ (333,545,299)	\$ 333,553,979	1,061,634,819	\$ (8,680)	\$ 0	\$ (1,016,634,819)	\$ 0

## Appendix D

**Prior Years' Statements of Funds Flow** (continued)

For the year ended June 30, 2016

	2015 Balance	Receipts	Inter-Fund Transfers	Disbursements	2016 Balance
Annuity Savings Fund	\$ 6,431,101,388	\$ 757,498,692	\$ 19,876,596	\$ 48,138,164	\$ 7,160,338,512
Annuity Reserve Fund	2,497,337,278	76,124,546	341,630,855	520,222,466	2,394,870,213
Pension Fund	—	1,272,527,751	1,070,556,922	2,343,084,673	—
Military Service Fund	221,025	24,483	(8,449)	—	237,059
Expense Fund	—	172,424,406	—	172,424,406	—
Pension Reserve Fund	16,500,408,494	318,273,905	(1,432,055,924)	—	15,386,626,475
<b>Total All Funds</b>	<b>\$ 25,429,068,185</b>	<b>\$ 2,596,873,783</b>	<b>\$ —</b>	<b>\$ 3,083,869,709</b>	<b>\$ 24,942,072,259</b>

## INTER-FUND TRANSFERS

Transfer from...	Annuity Savings Fund	Annuity Reserve	Pension Fund	Military Service Fund	Expense Fund	Pension Reserve Fund	Total
Annuity Savings Fund to Annuity Reserve Fund	\$ (341,622,406)	\$341,622,406	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Pension Reserve Fund to Annuity Savings Fund	361,499,002	0	0	0	0	(361,499,002)	0
Military Service to Annuity Reserve Fund	0	8,449	0	(8,449)	0	0	0
Pension Reserve Fund to Pension Fund for Fund Pensions	0	0	1,070,556,922	0	0	(1,070,556,922)	0
	\$ 19,876,596	\$341,630,855	\$1,070,556,922	\$(8,449)	\$ 0	\$ 1,432,055,924	\$ 0

## Appendix E

### Actuarial Valuation and Assumptions

The most recent actuarial valuation of the System was prepared by PERAC as of January 1, 2018.

The Total Normal Cost	\$	934,354*	
Expected Employee Contributions		691,864	10.13% of payroll
Net Normal Cost for the Employer		242,490	3.55% of payroll

The Actuarial Liability for Active Members	\$	21,097,850
The Actuarial Liability for Retired & Inactive Members		30,555,435
Total Actuarial Accrued Liability		51,653,285
System Assets as of that Date		27,057,700
Unfunded Actuarial Accrued Liability		24,595,585

The principal actuarial assumptions used in the valuation are as follows:

<b>Investment Return</b>	7.35% per annum
<b>Rate of Salary Increase</b>	4.00 – 7.00% based on years of service

### Scheduling of Funding Progress

(Dollars in thousands)

Actuarial Valuation Date	January 1, 2018
Actuarial Value of Assets (a)	\$ 27,057,700
Actuarial Accrued Liability (AAL) (b)	51,653,285
Unfunded AAL (UAAL) (b-a)	24,595,585
Funded Ratio (a/b)	52.4%
Covered Payroll (c)	6,829,012
UAAL as a % of Covered Payroll ((b-a)/c)	360.16%

\*The Total Normal Cost does not include amortization of the Unfunded Actuarial Liability